# WEST Search History

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DATE: Wednesday, January 14, 2004

| Hide? | Set Name | Query | Hit Count |
|---|---|---|---|
| | | *DB=PGPB,USPT,EPAB,JPAB,DWPI; PLUR=YES; OP=OR* | |
| ☐ | L4 | lantibiotic same (cobalt or metal or transition) | 5 |
| ☐ | L3 | bacteriocin same (cobalt or metal or transition) | 20 |
| ☐ | L2 | nisin same (cobalt or metal or transition) | 23 |
| ☐ | L1 | nicin same (cobalt or metal or transition) | 18 |

END OF SEARCH HISTORY



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- To combine searches use # before search number, e.g., #2 AND #6.
- Search numbers may not be continuous; all searches are represented.

| Search | Most Recent Queries | Time | Result |
|---|---|---|---|
| #33 | Search **lanthionine AND (metal or cobalt)** Field: **All Fields,** Limits: **Publication Date to 2002/02/22** | 11:59:12 | 6 |
| #27 | **Related Articles** for **PubMed** (Select **10563973**) | 11:56:22 | 154 |
| #26 | Search **(subtilin or cinnamycin or variacin) AND (metal or cobalt or zinc)** Field: **All Fields,** Limits: **Publication Date to 2002/02/22** | 11:56:13 | 1 |
| #18 | Search **lantibiotic AND (metal or cobalt)** Field: **All Fields,** Limits: **Publication Date to 2002/02/22** | 11:47:45 | 4 |
| #21 | **Related Articles** for **PubMed** (Select **7630881**) | 11:47:00 | 146 |
| #17 | Search **lantibiotic AND (metal or cobalt)** Field: **Title/Abstract,** Limits: **Publication Date to 2002/02/22** | 11:37:27 | 0 |
| #13 | Search **nisin AND metal** Field: **Title/Abstract,** Limits: **Publication Date to 2002/02/22** | 10:43:45 | 3 |
| #12 | Search **(nisin ) AND (cobalt or zinc or transition metal*)** Field: **Title/Abstract,** Limits: **Publication Date to 2002/02/22** | 10:41:27 | 0 |
| #11 | Search **(nisin ) AND (cobalt or zinc or transition metal*)** Limits: **Publication Date to 2002/02/22** | 10:41:16 | 1 |
| #10 | **Related Articles** for **PubMed** (Select **4962191**) | 10:40:53 | 233 |
| #4 | Search **(nisin or bacteriocin) AND (cobalt or zinc or transition metal*)** Field: **All Fields,** Limits: **Publication Date to 2002/02/22** | 10:37:47 | 6 |

Clear History

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     (FILE 'HOME' ENTERED AT 10:46:53 ON 14 JAN 2004)

     INDEX 'ADISCTI, ADISINSIGHT, ADISNEWS, AGRICOLA, ANABSTR, AQUASCI,
     BIOBUSINESS, BIOCOMMERCE, BIOSIS, BIOTECHABS, BIOTECHDS, BIOTECHNO, CABA,
     CANCERLIT, CAPLUS, CEABA-VTB, CEN, CIN, CONFSCI, CROPB, CROPU, DISSABS,
     DDFB, DDFU, DGENE, DRUGB, DRUGMONOG2, ...' ENTERED AT 10:47:14 ON 14 JAN
     2004
               SEA (BACTERIOCIN OR NICIN) (P) (COBALT OR METAL OR TRANSITION)
              ---------
               0*  FILE ADISNEWS
               2   FILE AGRICOLA
               1   FILE AQUASCI
               2   FILE BIOBUSINESS
               1*  FILE BIOCOMMERCE
              29   FILE BIOSIS
               6*  FILE BIOTECHABS
               6*  FILE BIOTECHDS
              18*  FILE BIOTECHNO
              10   FILE CABA
               1   FILE CANCERLIT
              33   FILE CAPLUS
               0*  FILE CEABA-VTB
               1*  FILE CIN
               5   FILE DISSABS
               1   FILE DDFB
               1   FILE DRUGB
               3   FILE EMBAL
              18   FILE EMBASE
              28*  FILE ESBIOBASE
               4*  FILE FEDRIP
               0*  FILE FOMAD
               0*  FILE FOREGE
               7*  FILE FROSTI
              10*  FILE FSTA
              12   FILE GENBANK
               5   FILE IFIPAT
               1*  FILE KOSMET
              13   FILE LIFESCI
               0*  FILE MEDICONF
              30   FILE MEDLINE
               3*  FILE NTIS
               0*  FILE NUTRACEUT
              21*  FILE PASCAL
               0*  FILE PHARMAML
               1   FILE PROMT
              22   FILE SCISEARCH
              28   FILE TOXCENTER
              27   FILE USPATFULL
               3   FILE USPAT2
               8   FILE WPIDS
               8   FILE WPINDEX
L1             QUE (BACTERIOCIN OR NICIN) (P) (COBALT OR METAL OR TRANSITION)
              ---------

     FILE 'MEDLINE, CAPLUS, BIOSIS, BIOTECHNO, EMBASE, LIFESCI, TOXCENTER,
     SCISEARCH' ENTERED AT 10:50:27 ON 14 JAN 2004
L2          191 S L1
L3           97 S L2 AND (BACTERIOCIN OR NICIN) (S) (COBALT OR METAL OR TRANSI
L4           54 S L3 AND (BACTERIOCIN OR NICIN) (S) (METAL OR COBALT)
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| | | |
|---|---|---|
| L5 | 19 | DUP REM L4 (35 DUPLICATES REMOVED) |
| L6 | 0 | S L5 AND NICIN |
| L7 | 0 | S L2 AND NICIN |
| L8 | 54 | S L3 AND (BACTERIOCIN OR NISIN) (S) (METAL OR COBALT) |
| L9 | 19 | DUP REM L8 (35 DUPLICATES REMOVED) |
| L10 | 6 | S L8 AND NISIN |
| L11 | 2 | S L9 AND L10 |
| L12 | 70 | S NISIN (P) (COBALT OR METAL OR TRANSITION) |
| L13 | 25 | DUP REM L12 (45 DUPLICATES REMOVED) |
| L14 | 24 | S L13 NOT L11 |
| L15 | 14 | S L14 AND (COBOLT OR METAL) |
| L16 | 15 | S L14 AND (COBALT OR METAL) |
| L17 | 11 | S L16 NOT PY>2002 |

L11 ANSWER 1 OF 2 CAPLUS COPYRIGHT 2004 ACS on STN
AN 2003:737124 CAPLUS
DN 139:260316
TI **Bacteriocin-metal** complexes in the detection of pathogens and other biological analytes
IN Olstein, Alan D.; Feirtag, Joellen
PA USA
SO U.S. Pat. Appl. Publ., 24 pp.
CODEN: USXXCO
DT Patent
LA English
FAN.CNT 1

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|
| PI US 2003175207 | A1 | 20030918 | US 2002-82618 | 20020222 |
| PRAI US 2002-82618 | | 20020222 | | |

AB Complexes of **bacteriocins** and **metals** are provided that are useful in detecting bacteria, fungi and other biol. analytes, and are particularly useful in detecting gram pos. bacteria. The complexes are preferably chelated complexes wherein the **bacteriocin** is a lantibiotic, non-lanthionine contg. peptide, large heat labile protein and complex **bacteriocin**, fusion protein thereof, mixt. thereof, and fragment, homolog and variant thereof, and (b) a detectable label comprising a **transition** or lanthanide **metal**. The complex preferentially binds to viable gram pos. or mycobacterial cells. The complex can also bind to gram neg. bacteria and fungi. Methods of using the complexes in assays, diagnosis and imaging are also provided.

L11 ANSWER 2 OF 2 BIOTECHNO COPYRIGHT 2004 Elsevier Science B.V. on STN
AN 2003:37135060 BIOTECHNO
TI Synergy between **nisin** and select lactates against Listeria monocytogenes is due to the **metal** cations
AU McEntire J.C.; Montville T.J.; Chikindas M.L.
CS M.L. Chikindas, Department of Food Science, NJ Agricultural Experiment Station, Rutgers, State Univ. of New Jersey, New Brunswick, NJ 08901, United States.
E-mail: tchikindas@aesop.rutgers.edu
SO Journal of Food Protection, (01 SEP 2003), 66/9 (1631-1636), 17 reference(s)
CODEN: JFPRDR ISSN: 0362-028X
DT Journal; Article
CY United States
LA English
SL English
AB Listeria monocytogenes, a major foodborne pathogen, has been responsible for many outbreaks and recalls. Organic acids and antimicrobial peptides (**bacteriocins**) such as **nisin** are produced by lactic acid bacteria and are commercially used to control pathogens in some foods. This study examined the effects of lactic acid (LA) and its salts in combination with a commercial **nisin** preparation on the growth of L. monocytogenes Scott A and its **nisin**-resistant mutant. Because of an increase in its activity at a lower pH, **nisin** was more active against L. monocytogenes when used in combination with LA. Most of the salts of LA, including potassium lactate, at up to 5% partially inhibited the growth of L. monocytogenes and had no synergy with **nisin**. Zinc and aluminum lactate, as well as zinc and aluminum chloride (0.1%), worked synergistically with 100 IU of **nisin** per ml to control the growth of L. monocytogenes Scott A. No synergy was observed when zinc or aluminum lactate was used with **nisin** against **nisin**-resistant

L. monocytogenes. The **nisin**-resistant strain was more sensitive to Zn lactate than was wild-type L. monocytogenes Scott A; however, the cellular ATP levels of the **nisin**-resistant strain were not significantly affected. Changes in the intracellular ATP levels of the wild-type strain support our hypothesis that pretreatment with zinc lactate sensitizes cells to **nisin**. The similar effects of the salts of hydrochloric and lactic acids support the hypothesis that **metal** cations are responsible for synergy with **nisin**.

17 ANSWER 1 OF 11 MEDLINE on STN
AN 2001500328 MEDLINE
DN 21433888 PubMed ID: 11408491
TI Xyloside transport by XylP, a member of the galactoside-pentoside-hexuronide family.
AU Heuberger E H; Smits E; Poolman B
CS Department of Biochemistry, Groningen Biomolecular Sciences and Biotechnology Institute, University of Groningen, Nijenborgh 4, 9747 AG Groningen, The Netherlands.
SO JOURNAL OF BIOLOGICAL CHEMISTRY, (2001 Sep 14) 276 (37) 34465-72.
Journal code: 2985121R. ISSN: 0021-9258.
CY United States
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals
EM 200110
ED Entered STN: 20010911
Last Updated on STN: 20030105
Entered Medline: 20011011
AB This paper describes the functional characterization of the xyloside transporter, XylP, of Lactobacillus pentosus with the aid of a spectroscopy-based assay system. In order to monitor the transport reaction, the natural xyloside isoprimeverose, a building block of hemicellulose, and the analogue methyl-isoprimeverose were chemically synthesized by a new and efficient procedure. The XylP protein was purified by **metal** affinity chromatography, following high level expression in Lactococcus lactis from the **nisin**-inducible promoter. The purified XylP protein was incorporated into liposomes, in which the glucose dehydrogenase from Acinetobacter calcoaceticus (sGDH) was entrapped. sGDH can oxidize aldose sugars in the presence of dichlorophenol-indophenol as electron acceptor. The coupled assay thus involves XylP-mediated isoprimeverose uptake followed by internal oxidation of the sugar by sGDH, which can be monitored from the reduction of 2,6-dichlorophenol-indophenol at 600 nm. The uptake of isoprimeverose was stimulated by the presence of the non-oxidizable methyl-isoprimeverose on the trans-side of the membrane, indicating that exchange transport is faster than unidirectional downhill uptake. Unlike other members of the galactoside-pentoside-hexuronide family, XylP does not transport monosaccharides (xylose) but requires a glycosidic linkage at the anomeric carbon position. Consistent with a proton motive force-driven mechanism, the uptake was stimulated by a membrane potential (inside negative relative to outside) and inhibited by a pH gradient (inside acidic relative to outside). The advantages of the here-described transport assay for studies of carbohydrate transport are discussed.

=> d 2-11 l17 bib,abs

L17 ANSWER 2 OF 11 MEDLINE on STN
AN 2000405069 MEDLINE
DN 20031856 PubMed ID: 10563973
TI Chemistry, biochemistry, nutrition, and microbiology of lysinoalanine, lanthionine, and histidinoalanine in food and other proteins.
AU Friedman M
CS Western Regional Research Center, Agricultural Research Service, U.S. Department of Agriculture, Albany, CA 94710, USA.
SO JOURNAL OF AGRICULTURAL AND FOOD CHEMISTRY, (1999 Apr) 47 (4) 1295-319.
Ref: 280
Journal code: 0374755. ISSN: 0021-8561.
CY United States
DT Journal; Article; (JOURNAL ARTICLE)

General Review; (REVIEW)
(REVIEW, ACADEMIC)
LA English
FS Priority Journals
EM 200008
ED Entered STN: 20000901
Last Updated on STN: 20000901
Entered Medline: 20000822
AB Heat and alkali treatments of foods, widely used in food processing, result in the formation of dehydro and cross-linked amino acids such as dehydroalanine, methyldehydroalanine, beta-aminoalanine, lysinoalanine (LAL), ornithinoalanine, histidinoalanine (HAL), phenylethylaminoalanine, lanthionine (LAN), and methyl-lanthionine present in proteins and are frequently accompanied by concurrent racemization of L-amino acid isomers to D-analogues. The mechanism of LAL formation is a two-step process: first, hydroxide ion-catalyzed elimination of H(2)S from cystine and H(2)O, phosphate, and glycosidic moieties from serine residues to yield a dehydroalanine intermediate; second, reaction of the double bond of dehydroalanine with the epsilon-NH(2) group of lysine to form LAL. Analogous elimination-addition reactions are postulated to produce the other unusual amino acids. Processing conditions that favor these transformations include high pH, temperature, and exposure time. Factors that minimize LAL formation include the presence of SH-containing amino acids, sodium sulfite, ammonia, biogenic amines, ascorbic acid, citric acid, malic acid, and glucose; dephosphorylation of O-phosphoryl esters; and acylation of epsilon-NH(2) groups of lysine. The presence of LAL residues along a protein chain decreases digestibility and nutritional quality in rodents and primates but enhances nutritional quality in ruminants. LAL has a strong affinity for copper and other **metal** ions and is reported to induce enlargement of nuclei of rats and mice but not of primate kidney cells. LAL, LAN, and HAL also occur naturally in certain peptide and protein antibiotics (cinnamycin, duramycin, epidermin, **nisin**, and subtilin) and in body organs and tissues (aorta, bone, collagen, dentin, and eye cataracts), where their formation may be a function of the aging process. These findings are not only of theoretical interest but also have practical implications for nutrition, food safety, and health. Further research needs are suggested for each of these categories. These overlapping aspects are discussed in terms of general concepts for a better understanding of the impact of LAL and related compounds in the diet. Such an understanding can lead to improvement in food quality and safety, nutrition, microbiology, and human health.

L17 ANSWER 3 OF 11 MEDLINE on STN
AN 92042212 MEDLINE
DN 92042212 PubMed ID: 1658003
TI Purification and properties of fructokinase I from Lactococcus lactis. Localization of scrK on the sucrose-nisin transposon Tn5306.
AU Thompson J; Sackett D L; Donkersloot J A
CS Laboratory of Microbial Ecology, National Institute of Dental Research, National Institutes of Health, Bethesda, Maryland 20892.
SO JOURNAL OF BIOLOGICAL CHEMISTRY, (1991 Nov 25) 266 (33) 22626-33.
Journal code: 2985121R. ISSN: 0021-9258.
CY United States
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals
EM 199112
ED Entered STN: 19920124
Last Updated on STN: 19990129
Entered Medline: 19911226
AB Two electrophoretically distinct proteins with fructokinase

(ATP:fructose-6-phosphotransferase) activity were detected in Lactococcus lactis subsp. lactis K1. Whereas fructokinase I was induced specifically by growth of the organism on sucrose, fructokinase II was derepressed during growth on ribose, galactose, maltose, and lactulose. Fructokinase I was purified about 1000-fold to electrophoretic homogeneity (specific activity 112 units/mg). The amino acid composition, N-terminal sequence, nucleoside triphosphate, and **metal** requirement(s) of the enzyme are reported. Ultracentrifugal analysis showed that the enzyme was primarily dimeric with subunits of 33.5 kDa (+/- 5%). When completely reduced, fructokinase I migrated as a single protein (Mr = 32,000) by sodium dodecyl sulfate-polyacrylamide gel electrophoresis, but in the absence of reducing agent two polypeptides (apparent Mr = 29,000 and 31,000) were detected. Isoelectric focusing also revealed two polypeptides (pI 5.6 and 5.8), and both species catalyzed the phosphorylation of fructose and mannose. Hybridization studies showed that: (i) a sucrose-negative mutant lacking the fructokinase I gene (scrK) retained fructokinase II activity and (ii) scrK is closely linked to scrA and scrB which encode Enzyme IIScr and sucrose-6-phosphate hydrolase, respectively. In L. lactis K1, these genes and the N5-(1-carboxyethyl)-L-ornithine synthase gene (ceo) are encoded on the sucrose-**nisin** transposon Tn5306 in the order ceo-scrKAB.

L17 ANSWER 4 OF 11 CAPLUS COPYRIGHT 2004 ACS on STN
AN 1997:503251 CAPLUS
DN 127:108243
TI Bacterial decontamination method
IN Miles, Roger Joseph; Cassar, Claire Amanda; Da Silva Carneiro De Melo, Alexandra Maria
PA Minister of Agriculture Fisheries and Food, UK; Miles, Roger Joseph; Cassar, Claire Amanda; Da Silva Carneiro De Melo, Alexandra Maria
SO PCT Int. Appl., 36 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|---|
| PI | WO 9723136 | A1 | 19970703 | WO 1996-GB3173 | 19961220 |
| | W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IS, JP, KE, KG, KR, KZ, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TR, TT, UA, UG, US, UZ, VN, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM | | | | |
| | RW: KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG | | | | |
| | AU 9711657 | A1 | 19970717 | AU 1997-11657 | 19961220 |
| | EP 868122 | A1 | 19981007 | EP 1996-942523 | 19961220 |
| | R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI | | | | |
| | JP 2000503002 | T2 | 20000314 | JP 1997-523407 | 19961220 |
| PRAI | GB 1995-26174 | | 19951221 | | |
| | WO 1996-GB3173 | | 19961220 | | |

AB Methods for the redn. of levels of gram neg. and gram pos. bacteria are disclosed which involve treatment with a soln. of low concn. alkali **metal** orthophosphate combined with either osmotic shock and/or subsequently a lysozyme in soln. and/or **nisin** in soln. The combination process is synergistic in extending the range of effective killing of bacteria and enables the use of more desirable processing parameters than the previous techniques and is particularly suitable for food processing.

L17 ANSWER 5 OF 11 CAPLUS COPYRIGHT 2004 ACS on STN
AN 1997:67422 CAPLUS
DN 126:79790
TI Oral compositions containing nisin
IN Mcconville, Peter Scott; Bartlett, Mike; Price, Fiona
PA Smithkline Beecham Plc, UK; Mcconville, Peter Scott; Bartlett, Mike; Price, Fiona
SO PCT Int. Appl., 16 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|---|
| PI | WO 9637181 | A1 | 19961128 | WO 1996-EP2222 | 19960522 |
| | W: JP, US | | | | |
| | RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE | | | | |
| | EP 828474 | A1 | 19980318 | EP 1996-917411 | 19960522 |
| | R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI | | | | |
| | JP 11505819 | T2 | 19990525 | JP 1996-535392 | 19960522 |
| PRAI | GB 1995-10719 | | 19950526 | | |
| | WO 1996-EP2222 | | 19960522 | | |

OS MARPAT 126:79790
AB The use of a **nisin** compn. for the manuf. of an oral hygiene compn. for the control of candida characterized in that the compn. comprises at least two components selected from a humectant, a **metal** ion chelator and a flavor, excluding any other antimicrobial agent, plus an orally acceptable carrier or excipient. A non-alc. mouthwash contained ambicin 0.03, glycerin 5.00, flavor 0.12, disodium EDTA 0.037, sodium saccharin 0.005, patent blue V 0.0002, N-acetyl-D-methionine 0.24, sodium fluoride 0.02, detergent 1.60, and water q.s. 100%.

L17 ANSWER 6 OF 11 CAPLUS COPYRIGHT 2004 ACS on STN
AN 1996:634246 CAPLUS
DN 125:313808
TI Charge sensitivity of superconducting single-electron transistor
AU Korotkov, Alexander N.
CS Dep. Physics, State Univ. New York, Stony Brook, NY, 11794-3800, USA
SO Applied Physics Letters (1996), 69(17), 2593-2595
CODEN: APPLAB; ISSN: 0003-6951
PB American Institute of Physics
DT Journal
LA English
AB It is shown that the noise-limited charge sensitivity of a single-electron transistor using superconductors (of either SISIS- or **NISIN** -type) operating near the threshold of quasiparticle tunneling can be considerably higher than that of a similar transistor made of normal **metals** or semiconductors. The reason is that the superconducting energy gap, in contrast to the Coulomb blockade, is not smeared by the finite temp. The authors also discuss the increase of the max. operation temp. due to supercond. and the peaklike features on the I-V curve of SISIS structures.

L17 ANSWER 7 OF 11 CAPLUS COPYRIGHT 2004 ACS on STN
AN 1994:656317 CAPLUS
DN 121:256317
TI Electrospray mass spectroscopic analysis of **metal**-peptide complexes

AU Surovoy, Andrej; Waidelich, Dietmar; Jung, Guenther
CS Shemyakin Inst. Bioorganic Chem., Moscow, Russia
SO Pept. 1992, Proc. Eur. Pept. Symp., 22nd (1993), Meeting Date 1992, 563-4. Editor(s): Schneider, Conrad H.; Eberle, Alex N. Publisher: ESCOM, Leiden, Neth.
CODEN: 60LUAN
DT Conference
LA English
AB A report from a symposium on electrospray mass spectroscopic anal. of zinc complexes of nucleocapsid protein fragment NCp7 and lantibiotic nisin precursor prenisin.

L17 ANSWER 8 OF 11 CAPLUS COPYRIGHT 2004 ACS on STN
AN 1969:86373 CAPLUS
DN 70:86373
TI Effects of selected food additives on growth of Pseudomonas fragi
AU Moustafa, Hassan H.; Collins, Edwin B.
CS Univ. of California, Davis, CA, USA
SO Journal of Dairy Science (1969), 52(3), 335-40
CODEN: JDSCAE; ISSN: 0022-0302
DT Journal
LA English
AB Tests were made of inhibition of P. fragi in lactose-yeast ext. broth by the food additives chlortetracycline, **nisin**, bacitracin, chloramphenicol, lysozyme, EDTA, nitrofurazone, propyl-p-hydroxybenzoate, Na benzoate, and K sorbate. The additives that proved effective in broth were tested in skim milk and half-and-half. **Nisin**, bacitracin, lysozyme, and nitrofurazone were ineffective in broth; chloramphenicol increased the lag period prior to development of turbidity but resulted in chloramphenicol-resistant populations, and EDTA inhibited the bacterium slightly in broth but not in skim milk or half-and-half. Propyl - p - hydroxybenzoate, chlortetracycline, and a mixt. of lysozyme and EDTA were effective in broth but not in skimmilk or half-and-half, a difference attributed to **metal** ions in dairy products that react with chlortetracycline and EDTA. Na benzoate retarded P. fragi in broth, but only at low pH. K sorbate was ineffective at pH 6.5 in broth, but at pH 5.5 and 5.2 inhibited growth of P. fragi in broth, skimmilk, and half-and-half.

L17 ANSWER 9 OF 11 CAPLUS COPYRIGHT 2004 ACS on STN
AN 1968:409797 CAPLUS
DN 69:9797
TI Food additives control in the United Kingdom
AU West, Geoffrey Buckle
CS Brit. Ind. Biol. Res. Assoc., Carshalton, UK
SO Reports on the Progress of Applied Chemistry (1966), 51, 366-78
CODEN: RPACAS; ISSN: 0370-6648
DT Journal
LA English
AB Substances added directly for color preservation or flavoring and those getting into food through processing or packaging materials are discussed. Procedures for control through official agencies are described. Low toxicity is essential for each. In relating the max. daily tolerated dose producing no ill effects in test animals with daily human intake a safety factor of 100 is used, but may have to be increased in particular cases. Modifications are made for different types of additives. Ponceau 3R and SX, Naphthol Yellow S, Blue VRS, Yellow RFS, and RY have been withdrawn from permitted coal tar colors. Flavorings recommended for withdrawal are coumarin, tonka bean, dihydro-, iso-, and safrole, agaric acid, nitrobenzene, dulcamara, male fern, and sassafras, pennyroyal, tansy, rue, birch tar, cade, and volatile bitter almond oils. As solvents, only EtOH,

EtOAc, glycerol and its mono-, di-, and triacetate, iso-PrOH, and propylene glycol are recommended for food prepn. The latter 2 are provisional pending long-term toxicity studies. Cyclamates are favored as sweeteners. The U.K. is now without legal control of packaging materials. Much interest is being shown for the control of migrants. Proposals by J. P. Frawley (1966) are presented; these suggest that any component of an article contg. food present in the article or its coating at a level not exceeding 0.2% by wt. is toxicologically insignificant provided it is not a heavy **metal** or pesticide. Unexpected and unwanted effects by additives are discussed. These include nitrites in meat and fish curing, ethylene oxide as fumigant, diethylene glycol mono-Et ether as solvents, and use of **nisin** (polypeptide from streptoccoci) for reducing sterilizing temps. in certain foods.

L17 ANSWER 10 OF 11 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
AN 1974:51170 BIOSIS
DN PREV197410051170; BR10:51170
TI EFFECT OF **COBALT**-60 GAMMA RADIATION ON THE STRUCTURE AND FUNCTION OF PENICILLIN OXYTETRACYCLINE AND **NISIN**.
AU GUPTA K G; VYAS K K; SEHKNON N S
SO (1973) pp. 1973. U N E S C O AND W H O. GLOBAL IMPACTS OF APPLIED MICROBIOLOGY. 4TH INTERNATIONAL CONFERENCE IMPACTOS GLOBAIS DA MICROBIOLOGIA APLICADA. INCIDENCES MONDIALES DE LA MICROBIOLOGIE APPLIQUEE. IMPACTOS GLOBALES DE LA MICROBIOLOGIA APLICADA SAO PAULO, BRAZIL, JULY 23-28, 1973. 35P. UNIPUB, INC.: P.O. BOX 433, NEW YORK, N. Y., U.S.A.
DT Book
FS BR
LA Unavailable

L17 ANSWER 11 OF 11 SCISEARCH COPYRIGHT 2004 THOMSON ISI on STN
AN 91:653396 SCISEARCH
GA The Genuine Article (R) Number: GR564
TI PURIFICATION AND PROPERTIES OF FRUCTOKINASE-I FROM LACTOCOCCUS-LACTIS - LOCALIZATION OF SCRK ON THE SUCROSE-NISIN TRANSPOSON TN5306
AU THOMPSON J (Reprint); SACKETT D L; DONKERSLOOT J A
CS NIDR, MICROBIAL ECOL LAB, BLDG 30, RM 528, 9000 ROCKVILLE PIKE, BETHESDA, MD, 20892 (Reprint); NIADDKD, BETHESDA, MD, 20892
CYA USA
SO JOURNAL OF BIOLOGICAL CHEMISTRY, (1991) Vol. 266, No. 33, pp. 22626-22633.
DT Article; Journal
FS LIFE
LA ENGLISH
REC Reference Count: 43
*ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS*
AB Two electrophoretically distinct proteins with fructokinase (ATP: fructose-6-phosphotransferase) activity were detected in Lactococcus lactis subsp. lactis K1. Whereas fructokinase I was induced specifically by growth of the organism on sucrose, fructokinase II was derepressed during growth on ribose, galactose, maltose, and lactulose. Fructokinase I was purified about 1000-fold to electrophoretic homogeneity (specific activity 112 units/mg). The amino acid composition, N-terminal sequence, nucleoside triphosphate, and **metal** requirement(s) of the enzyme are reported. Ultracentrifugal analysis showed that the enzyme was primarily dimeric with subunits of 33.5 kDa (+/- 5%). When completely reduced, fructokinase I migrated as a single protein (M(r) = 32,000) by sodium dodecyl sulfate-polyacrylamide gel electrophoresis, but in the absence of reducing agent two polypeptides (apparent M(r) = 29,000 and 3 1,000) were detected. Isoelectric focusing also revealed two polypeptides (pI 5.6 and 5.8), and both species catalyzed the phosphorylation of fructose and mannose. Hybridization studies showed that: (i) a

sucrose-negative mutant lacking the fructokinase I gene (scrK) retained fructokinase II activity and (ii) scrK is closely linked to scrA and scrB which encode Enzyme II(Ser) and sucrose-6-phosphate hydrolase, respectively. In L. lactis K1, these genes and the N5-(1-carboxyethyl)-L-ornithine synthase gene (ceo) are encoded on the sucrose-**nisin** transposon Tn5306 in the order ceo-scrKAB.